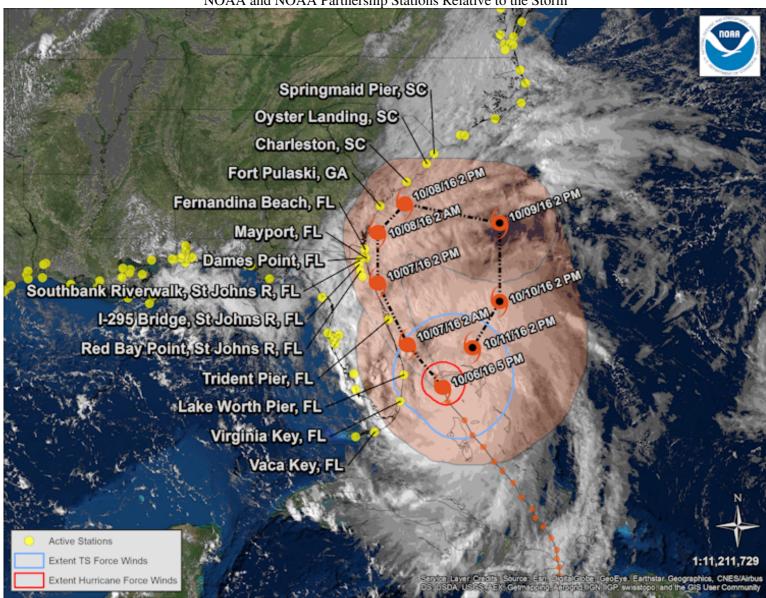




Hurricane MATTHEW QuickLook Posted: 18:00 EDT 10/06/2016

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 10/06/2016 18:00 EDT, water levels along the coast from south Florida to South Carolina range from 0.8 to 3.1 feet above tidal predictions. Winds are currently measuring between 10 and 35 kts with gusts up to 45 kts along the east coast of Florida. Barometric pressure is beginning to decrease across the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: AJC

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

HURRICANE MATTHEW ADVISORY NUMBER 35

NWS NATIONAL HURRICANE CENTER MIAMI FL

500 PM EDT THU OCT 06 2016

...EYE OF EXTREMELY DANGEROUS HURRICANE MATTHEW ABOUT TO HIT FREEPORT IN THE BAHAMAS...

...POTENTIALLY DISASTROUS IMPACTS FOR FLORIDA...

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Hurricane Warning has been extended northward to South Santee River, South Carolina.

A Tropical Storm Warning has been issued from north of South Santee River to Surf City, North Carolina.

The Government of the Bahamas has discontinued the Hurricane Warning for the Central Bahamas.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

- * Northwestern Bahamas, including the Abacos, Andros Island, Berry Islands, Bimini, Eleuthera, Grand Bahama Island, and New Providence
- * North of Golden Beach to South Santee River
- * Lake Okeechobee

A Tropical Storm Warning is in effect for...

- * Chokoloskee to Golden Beach
- * Florida Keys from Seven Mile Bridge eastward

- * Florida Bay
- * Anclote River to Suwannee River
- * North of South Santee River to Surf City

A Tropical Storm Watch is in effect for...

* North of Chokoloskee to Anclote River

Interests elsewhere in the Florida Peninsula, the Florida Keys, and in the Carolinas should monitor the progress of Matthew.

A Hurricane Warning means that hurricane conditions are expected somewhere within the warning area. A warning is typically issued 36 hours before the anticipated first occurrence of tropical-storm- force winds, conditions that make outside preparations difficult or dangerous. Preparations to protect life and property should be rushed to completion.

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area within 36 hours.

For storm information specific to your area in the United States, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office. For storm information specific to your area outside the United States, please monitor products issued by your national meteorological service.

DISCUSSION AND 48-HOUR OUTLOOK

At 500 PM EDT, the eye of Hurricane Matthew was located about 25 MI SSE of Freeport, Grand Bahama Island. The hurricane is moving toward the northwest near 14 mph, and this general motion is expected to continue tonight with a turn toward the north-northwest early Friday. On the forecast track, the eye of Matthew should move near or over Freeport in the Bahamas in the next hour or so, and move close to or over the east coast of the Florida peninsula through Friday night.

Maximum sustained winds are near 140 mph with higher gusts. Matthew is a category 4 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some fluctuations in intensity are likely while the hurricane moves toward the coast of Florida.

Hurricane-force winds extend outward up to 60 miles from the center and tropical-storm-force winds extend outward up to 185 miles. Settlement Point in the Bahamas, recently reported a sustained wind of 54 mph with a gust of 62 mph.

The minimum central pressure reported by a NOAA Hurricane Hunter plane was 938 mb.

HAZARDS AFFECTING LAND

WIND: Hurricane conditions will continue over portions of the northwestern Bahamas this evening.

Hurricane conditions are expected to first reach the hurricane warning area in Florida this evening and will spread northward within the warning area through Friday. Tropical storm conditions will continue to spread northward in the warning area along the Florida east coast tonight and Friday.

Hurricane conditions are expected to spread northward in the warning area in Georgia and South Carolina Friday night and Saturday with tropical storm conditions expected on Friday.

Winds increase rapidly in elevation in a tropical cyclone. Residents in high-rise buildings should be aware that the winds at the top of a 30-story building will be, on average, about one Saffir-Simpson category higher than the winds near the surface.

Tropical storm conditions are expected in the tropical storm warning area in the Carolinas on Friday night and Saturday.

STORM SURGE: The combination of a dangerous storm surge and large and destructive waves could raise water levels by as much as the following amounts above normal tide levels...

Northwestern Bahamas...10 to 15 feet

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

Sebastian Inlet, Florida, to Edisto Beach, South Carolina, including portions of the St. Johns River...7 to 11 ft

Edisto Beach to South Santee River, South Carolina...4 to 6 ft

Deerfield Beach to Sebastian Inlet, Florida...4 to 6 ft

South Santee River, South Carolina, to Cape Fear, North Carolina...2 to 4 ft

Virginia Key to Deerfield Beach, Florida...1 to 3 ft

Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. Large waves generated by Matthew will cause water rises to occur well in advance of and well away from the track of the center.

The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. There is a danger of life-threatening inundation during the next 36 hours along the Florida east coast, the Georgia coast, and the South Carolina coast from Deerfield Beach, Florida, to South Santee River, South Carolina. There is the possibility of life-threatening inundation during the next 48 hours from north of South Santee River, South Carolina, to Cape Fear, North Carolina. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

RAINFALL: Matthew is expected to produce total rainfall amounts in the following areas:

The central and northern Bahamas...8 to 12 inches, isolated 15 inches

Coastal eastern Florida, Georgia, South Carolina, and southeast North Carolina....5 to 10 inches, isolated 12 inches

Rainfall should diminish across central and eastern Cuba with isolated additional amounts of 1 to 2 inches possible through this evening.

TORNADOES: An isolated tornado or two is possible along the east-central Florida coast tonight.

SURF: Swells generated by Matthew will continue to affect portions of the north coast of Cuba and the Bahamas during the next few days, and will spread northward along the east coast of Florida and the southeast U.S. coast through the weekend. These swells will likely cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

Next intermediate advisory at 800 PM EDT.

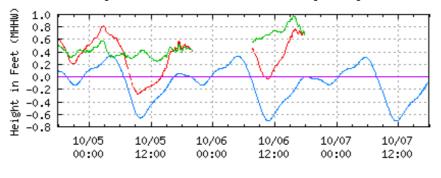
Next complete advisory at 1100 PM EDT.

Forecaster Avila

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: <u>Vaca Key - Water Level</u>, <u>Vaca Key - Winds</u>, <u>Vaca Key - Barometric</u>, <u>Virginia Key - Water Level</u>, <u>Virginia Key - Water Level</u>, <u>Virginia Key - Barometric</u>, <u>Lake Worth Pier - Water Level</u>, <u>Lake Worth Pier - Winds</u>, <u>Trident Pier - Water Level</u>, <u>Red Bay Point</u>, <u>St Johns River - Water Level</u>, <u>Red Bay Point</u>, <u>St Johns River - Water Level</u>, <u>Red Bay Point</u>, <u>St Johns River - Water Level</u>, <u>Red Bay Point</u>, <u>St Johns River - Water Level</u>, <u>St Johns River - Water Level</u>, <u>Southbank Riverwalk</u>, <u>St Johns River - Water Level</u>, <u>Dames Point - Water Level</u>, <u>Mayport (Bar Pilots Dock) - Water Level</u>, <u>Mayport (Bar Pilots Dock) - Water Level</u>, <u>Fernandina Beach - Water Level</u>, <u>Fort Pulaski - Water Level</u>, <u>Charleston - Winds</u>, <u>Charleston - Barometric</u>, <u>Oyster Landing (N Inlet Estuary) - Water Level</u>, <u>Springmaid Pier - Water Level</u>, <u>Springmaid Pier - Winds</u>

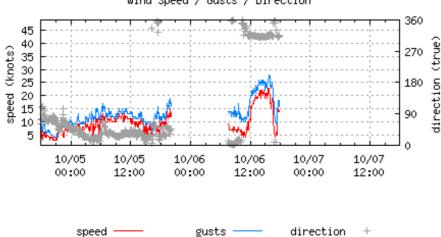
NOAA/NOS/CO-OPS <u>8723970 Vaca Key, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) (Obs-Pred) MHHW

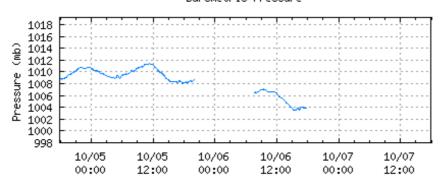
Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: 0.67 ft. Predicted: -0.00 ft. Residual: 0.67 ft. Historical Maximum Water Level: Oct 24 2005, 5.80 ft. Next High Tide: 10/06/2016 18:07 (EDT), -0.00 ft.

NOAA/NOS/CO-OPS <u>8723970 Vaca Key, FL</u> Wind Speed / Gusts / Direction



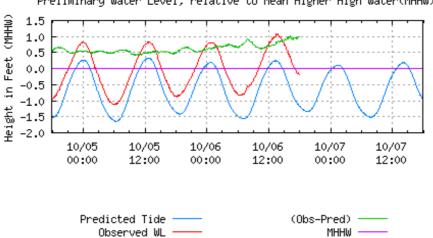
Last Observed Sample: 10/06/2016 17:54 (EDT) Wind Speed: 13 knots Gusts: 16 knots Direction: 309° T

NOAA/NOS/CO-OPS <u>8723970 Vaca Key, FL</u> Barometric Pressure



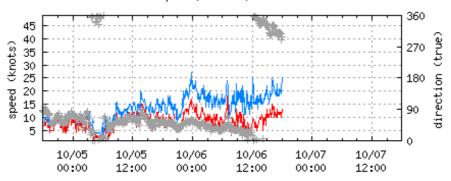
barometric pressure ——
Last Observed Sample: 10/06/2016 17:54 (EDT)
Barometric Pressure: 1003.7 mb

NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: -0.18 ft. Predicted: -1.16 ft. Residual: 0.98 ft. Historical Maximum Water Level: Oct 24 2005, 2.58 ft. Next High Tide: 10/07/2016 01:27 (EDT), 0.11 ft.

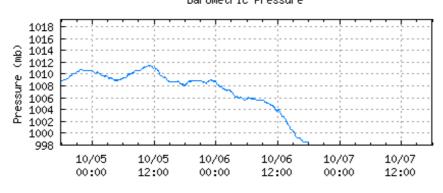
NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 10/06/2016 17:54 (EDT)

Wind Speed: 13 knots Gusts: 25 knots Direction: 298° T

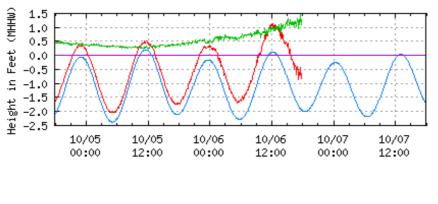
NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Barometric Pressure



barometric pressure ---

Last Observed Sample: 10/06/2016 17:54 (EDT)
Barometric Pressure: 998.6 mb

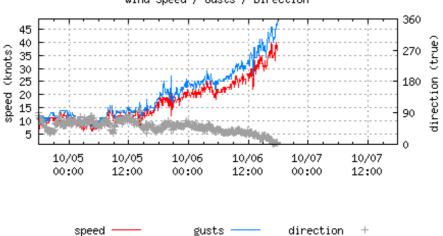
NOAA/NOS/CO-OPS <u>8722670 Lake Worth Pier, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) — Observed WL MHHW —

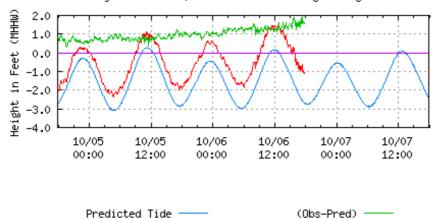
Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: -0.61 ft. Predicted: -1.97 ft. Residual: 1.36 ft. Historical Maximum Water Level: Nov 23 1984, 1.88 ft. Next High Tide: 10/07/2016 00:22 (EDT), -0.25 ft.

NOAA/NOS/CO-OPS 8722670 Lake Worth Pier, FL Wind Speed / Gusts / Direction



Last Observed Sample: 10/06/2016 17:54 (EDT) Wind Speed: 39 knots Gusts: 47 knots Direction: 2° T

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



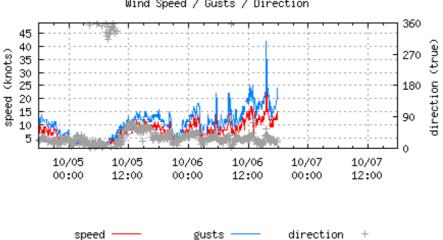
Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: -1.13 ft. Predicted: -2.70 ft. Residual: 1.57 ft.

MHHW

Observed WL

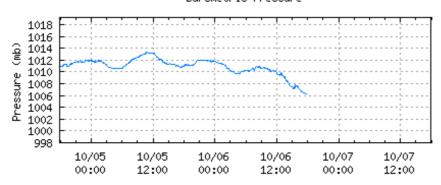
Historical Maximum Water Level: Sep 26 2004, 4.01 ft. Next High Tide: 10/07/2016 00:11 (EDT), -0.55 ft.

NOAA/NOS/CO-OPS 8721604 Trident Pier, FL Wind Speed / Gusts / Direction



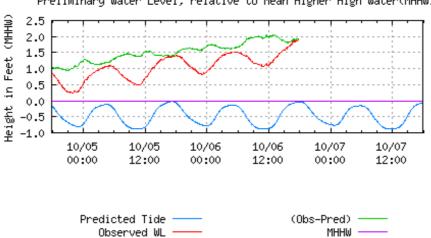
Last Observed Sample: 10/06/2016 17:54 (EDT) Wind Speed: 18 knots Gusts: 25 knots Direction: 32° T

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Barometric Pressure



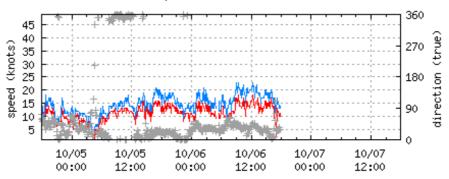
barometric pressure ——
Last Observed Sample: 10/06/2016 17:54 (EDT)
Barometric Pressure: 1006.4 mb

NOAA/NOS/CO-OPS <u>8720503 Red Bay Point, St Johns River, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: 1.92 ft. Predicted: -0.03 ft. Residual: 1.95 ft. Historical Maximum Water Level: Sep 27 2004, 2.93 ft. Next High Tide: 10/06/2016 18:02 (EDT), -0.03 ft.

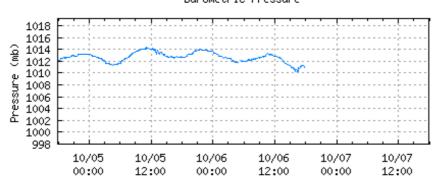
NOAA/NOS/CO-OPS <u>8720503 Red Bay Point, St Johns River, FL</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 10/06/2016 17:54 (EDT)

Wind Speed: 11 knots Gusts: 13 knots Direction: 20° T

NOAA/NOS/CO-OPS <u>8720503 Red Bay Point, St Johns River, FL</u> Barometric Pressure

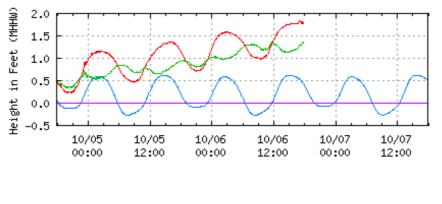


barometric pressure ----

Last Observed Sample: 10/06/2016 17:54 (EDT)

Barometric Pressure: 1011.0 mb

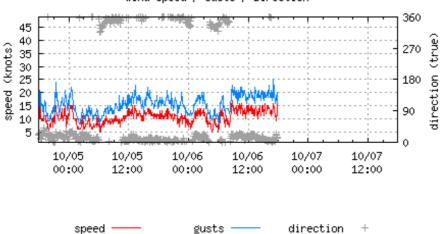
NOAA/NOS/CO-OPS <u>8720357 I-295 Bridge</u>, <u>St Johns River</u>, <u>FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) — Observed WL MHHW —

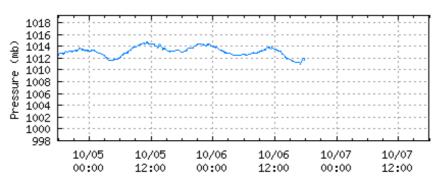
Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: 1.83 ft. Predicted: 0.40 ft. Residual: 1.43 ft. Historical Maximum Water Level: Sep 27 2004, 3.46 ft. Next High Tide: 10/07/2016 03:08 (EDT), 0.59 ft.

NOAA/NOS/CO-OPS 8720357 I-295 Bridge, St Johns River, FL Wind Speed / Gusts / Direction



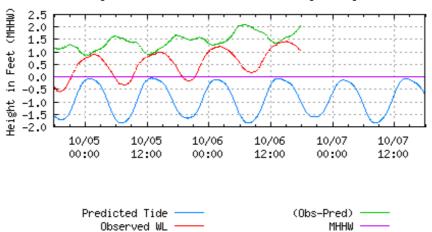
Last Observed Sample: 10/06/2016 17:54 (EDT) Wind Speed: 13 knots Gusts: 18 knots Direction: 11° T

NOAA/NOS/CO-OPS <u>8720357 I-295 Bridge</u>, <u>St Johns River</u>, <u>FL</u> Barometric Pressure



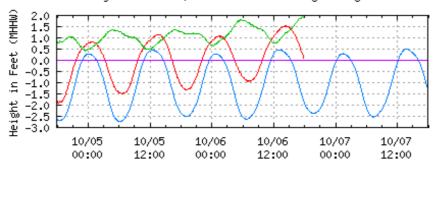
barometric pressure ——
Last Observed Sample: 10/06/2016 17:54 (EDT)
Barometric Pressure: 1011.7 mb

NOAA/NOS/CO-OPS <u>8720226 Southbank Riverwalk, St Johns River, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/06/2016 17:48 (EDT). Data relative to MHHW Observed: 1.06 ft. Predicted: -0.98 ft. Residual: 2.04 ft. Historical Maximum Water Level: Sep 27 2004, 3.44 ft. Next High Tide: 10/07/2016 02:04 (EDT), -0.13 ft.

NOAA/NOS/CO-OPS <u>8720219 Dames Point, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: 0.06 ft. Predicted: -1.88 ft. Residual: 1.94 ft. Historical Maximum Water Level: Sep 17 2001, 2.40 ft.

(Obs-Pred)

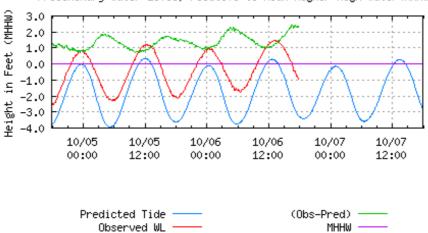
MHHW

Predicted Tide

Observed WL

Next High Tide: 10/07/2016 01:24 (EDT), 0.30 ft.

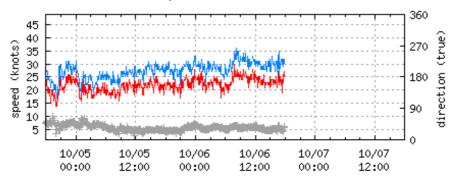
NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: -1.11 ft. Predicted: -3.28 ft. Residual: 2.17 ft.

Historical Maximum Water Level: Sep 27 2004, 2.47 ft. Next High Tide: 10/07/2016 01:01 (EDT), -0.15 ft.

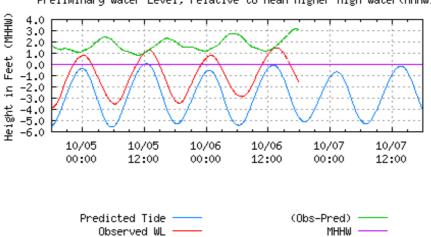
NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 10/06/2016 17:54 (EDT)

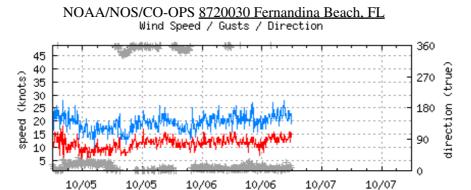
Wind Speed: 24 knots Gusts: 30 knots Direction: 38° T

NOAA/NOS/CO-OPS <u>8720030 Fernandina Beach, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/06/2016 17:54 (EDT). Data relative to MHHW Observed: -1.56 ft. Predicted: -4.67 ft. Residual: 3.11 ft.

Historical Maximum Water Level: Oct 2 1898, 6.94 ft. Next High Tide: 10/07/2016 01:16 (EDT), -0.68 ft.



speed gusts direction + Last Observed Sample: 10/06/2016 17:54 (EDT)

12:00

00:00

(Obs-Pred)

MHHW

12:00

Wind Speed: 14 knots Gusts: 19 knots Direction: 10° T

00:00

00:00

12:00

Predicted Tide

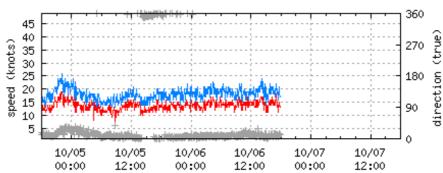
Observed WL

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA Preliminary Water Level, relative to Mean Higher High Water(MHHW) Height in Feet (MHHW) 3.0 2.0 1.0 0.0 -1.0 -2.0 -3.0 -4.0 -5.0 -6.0 -7.0 10/05 10/05 10/06 10/06 10/07 10/07 00:00 12:00 00:00 12:00 00:00 12:00

Last Observed Sample: 10/06/2016 17:48 (EDT). Data relative to MHHW Observed: -3.61 ft. Predicted: -5.72 ft. Residual: 2.11 ft.

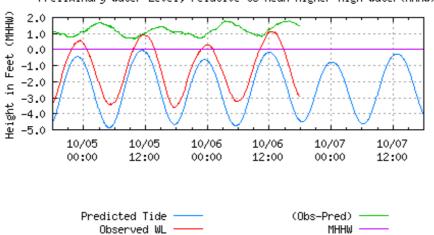
Historical Maximum Water Level: Oct 15 1947, 3.40 ft. Next High Tide: 10/07/2016 00:32 (EDT), -0.98 ft.

NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Wind Speed / Gusts / Direction



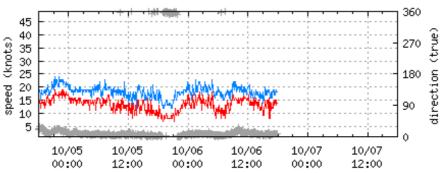
speed — gusts — direction + Last Observed Sample: 10/06/2016 17:48 (EDT)
Wind Speed: 13 knots Gusts: 17 knots Direction: 12° T

NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



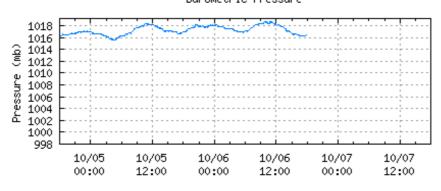
Last Observed Sample: 10/06/2016 17:48 (EDT). Data relative to MHHW Observed: -2.90 ft. Predicted: -4.39 ft. Residual: 1.49 ft. Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 10/07/2016 00:10 (EDT), -0.77 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, SC Wind Speed / Gusts / Direction



speed — gusts — direction + Last Observed Sample: 10/06/2016 17:48 (EDT)
Wind Speed: 14 knots Gusts: 18 knots Direction: 9° T

NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Barometric Pressure

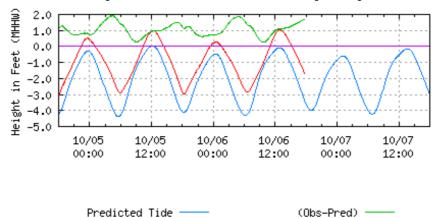


barometric pressure ----

Last Observed Sample: 10/06/2016 17:48 (EDT)

Barometric Pressure: 1016.4 mb

NOAA/NOS/CO-OPS <u>8662245 Oyster Landing (N Inlet Estuary)</u>, <u>SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



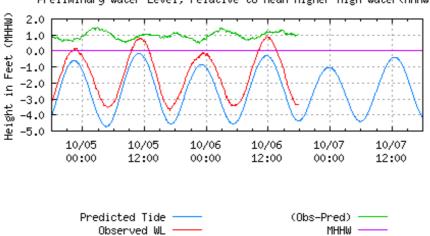
Last Observed Sample: 10/06/2016 17:42 (EDT). Data relative to MHHW Observed: -1.71 ft. Predicted: -3.38 ft. Residual: 1.67 ft.

MHHW

Observed WL

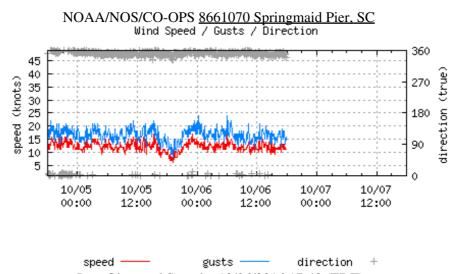
Historical Maximum Water Level: Aug 26 2011, 2.40 ft. Next High Tide: 10/07/2016 01:08 (EDT), -0.58 ft.

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/06/2016 17:48 (EDT). Data relative to MHHW Observed: -3.34 ft. Predicted: -4.37 ft. Residual: 1.03 ft.

Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 10/06/2016 23:49 (EDT), -1.03 ft.



Last Observed Sample: 10/06/2016 17:48 (EDT) Wind Speed: 11 knots Gusts: 16 knots Direction: 340° T

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8723970	Vaca Key, FL	10/06/2016 17:54 (EDT)	0.67 ft	-0.00 ft	0.67 ft	0.77 ft
8723214	Virginia Key, FL	10/06/2016 17:54 (EDT)	-0.18 ft	-1.16 ft	0.98 ft	1.08 ft
8722670	Lake Worth Pier, FL	10/06/2016 17:54 (EDT)	-0.61 ft	-1.97 ft	1.36 ft	1.13 ft
8721604	Trident Pier, FL	10/06/2016 17:54 (EDT)	-1.13 ft	-2.70 ft	1.57 ft	1.60 ft
8720503	Red Bay Point, St Johns River, FL	10/06/2016 17:54 (EDT)	1.92 ft	-0.03 ft	1.95 ft	1.92 ft
8720357	I-295 Bridge, St Johns River, FL	10/06/2016 17:54 (EDT)	1.83 ft	0.40 ft	1.43 ft	1.83 ft
8720226	Southbank Riverwalk, St Johns River, FL	10/06/2016 17:48 (EDT)	1.06 ft	-0.98 ft	2.04 ft	1.42 ft
8720219	Dames Point, FL	10/06/2016 17:54 (EDT)	0.06 ft	-1.88 ft	1.94 ft	1.54 ft
8720218	Mayport (Bar Pilots Dock), FL	10/06/2016 17:54 (EDT)	-1.11 ft	-3.28 ft	2.17 ft	1.50 ft
8720030	Fernandina Beach, FL	10/06/2016 17:54 (EDT)	-1.56 ft	-4.67 ft	3.11 ft	1.49 ft
8670870	Fort Pulaski, GA	10/06/2016 17:48 (EDT)	-3.61 ft	-5.72 ft	2.11 ft	1.10 ft
8665530	Charleston, SC	10/06/2016 17:48 (EDT)	-2.90 ft	-4.39 ft	1.49 ft	1.13 ft
8662245	Oyster Landing (N Inlet Estuary), SC	10/06/2016 17:42 (EDT)	-1.71 ft	-3.38 ft	1.67 ft	1.04 ft
8661070	Springmaid Pier, SC	10/06/2016 17:48 (EDT)	-3.34 ft	-4.37 ft	1.03 ft	0.94 ft

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